FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

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ATTY DOCKET NO. 01311.001006.1

APPLICATION NO. **Div. of 09/982,622**

APPLICANT

Thomas Johnson et al.

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5,610,554 3/97 Anvari 330 52					nerewith			17		
5,610,554 3/97 Anvari 330 52				-	U.S. PATENT DOCUMENTS					
5,617,061 4/97	*EXAMINER INITIAL			DATE	NAME	CLASS	SUBCLASS	FILING DATE		
5,621,354			5,610,554	3/97	Anvari	330	52			
5,694,395 12/97 Myer et al. 370 480			5,617,061	4/97	Fukuchi	330	151			
5,742,201 4/98			5,621,354	4/97	Mitzlaff	330	52			
5,831,478 11/98 Long 330 52 5,815,036 9/98 Yoshikawa et al. 330 52 4,879,519 11/89 Myer 330 149 4,379,994 4/83 Baumann 330 149 5,862,459 1/99 Charas 455 144 5,644,268 7/97 Hang 330 151 5,760,646 6/98 Belcher et al. 330 149 FOREIGN PATENT DOCUMENTS DOCUMENT DATE COUNTRY CLASS SUBCLASS TRANSLATIVESMO OR ABSTRY EP 0675594 10/95 EPO OTHER DOCUMENT(S) (Including Author, Title, Date, Perlinent Pages, Etc.) S. Grant, "A DSP Controlled Adaptive Feedforward Amplifier Linearizer," July, 1996. S. Grant and J. Cavers, "A DSP Controlled Adaptive Feedforward Amplifier Linearizer," ICUP: 1996. A. Smith, "A Wideband Adaptive Feedforward Amplifier Lineariser," August 1997. A. Smith and J. Cavers, "A Wideband Architecture For Adaptive Feedforward Linearization,"			5,694,395	12/97	Myer et al.	370	480			
5,815,036 9/98 Yoshikawa et al. 330 52			5,742,201	4/98	Eisenberg et al.	330	2			
4,879,519 11/89 Myer 330 149			5,831,478	11/98	Long	330	52			
4,379,994 4/83 Baumann 330 149 5,862,459 1/99 Charas 455 144 5,644,268 7/97 Hang 330 151 5,760,646 6/98 Belcher et al. 330 149 FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLAT YES/NO. OR ABSTRY EP 0675594 10/95 EPO OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) S. Grant, "A DSP Controlled Adaptive Feedforward Amplifier Linearizer," July, 1996. S. Grant and J. Cavers, "A DSP Controlled Adaptive Feedforward Amplifier Linearizer," ICUP 1996. A. Smith, "A Wideband Adaptive Feedforward Amplifier Lineariser," August 1997. A. Smith and J. Cavers, "A Wideband Architecture For Adaptive Feedforward Linearization,"			5,815,036	9/98	Yoshikawa et al.	330	52			
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5,760,646 6/98 Belcher et al. 330 149 FOREIGN PATENT DOCUMENTS DOCUMENT DATE COUNTRY CLASS SUBCLASS TRANSLATE YES/NO/OR ABSTRA EP 0675594 10/95 EPO OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) S. Grant, "A DSP Controlled Adaptive Feedforward Amplifier Linearizer," July, 1996. S. Grant and J. Cavers, "A DSP Controlled Adaptive Feedforward Amplifier Linearizer," ICUP 1996. A. Smith, "A Wideband Adaptive Feedforward Amplifier Linearizer," August 1997. A. Smith and J. Cavers, "A Wideband Architecture For Adaptive Feedforward Linearization,"	/		5,862,459	1/99	Charas	455	144			
FOREIGN PATENT DOCUMENTS DOCUMENT DATE COUNTRY CLASS SUBCLASS TRANSLATE YES/NO. OR ABSTRATE OF DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) S. Grant, "A DSP Controlled Adaptive Feedforward Amplifier Linearizer," July, 1996. S. Grant and J. Cavers, "A DSP Controlled Adaptive Feedforward Amplifier Linearizer," ICUP 1996. A. Smith, "A Wideband Adaptive Feedforward Amplifier Lineariser," August 1997. A. Smith and J. Cavers, "A Wideband Architecture For Adaptive Feedforward Linearization,"			5,644,268	7/97	Hang	330	151			
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OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.) S. Grant, "A DSP Controlled Adaptive Feedforward Amplifier Linearizer," July, 1996. S. Grant and J. Cavers, "A DSP Controlled Adaptive Feedforward Amplifier Linearizer," ICUP 1996. A. Smith, "A Wideband Adaptive Feedforward Amplifier Lineariser," August 1997. A. Smith and J. Cavers, "A Wideband Architecture For Adaptive Feedforward Linearization,"		* (DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATIO YES/NO/ OR ABSTRAC		
S. Grant, "A DSP Controlled Adaptive Feedforward Amplifier Linearizer," July, 1996. S. Grant and J. Cavers, "A DSP Controlled Adaptive Feedforward Amplifier Linearizer," ICUP 1996. A. Smith, "A Wideband Adaptive Feedforward Amplifier Lineariser," August 1997. A. Smith and J. Cavers, "A Wideband Architecture For Adaptive Feedforward Linearization,"	E	EP	0675594	10/95	EPO					
S. Grant and J. Cavers, "A DSP Controlled Adaptive Feedforward Amplifier Linearizer," ICUP 1996. A. Smith, "A Wideband Adaptive Feedforward Amplifier Lineariser," August 1997. A. Smith and J. Cavers, "A Wideband Architecture For Adaptive Feedforward Linearization,"				OTHER DOCU	JMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)					
1996. A. Smith, "A Wideband Adaptive Feedforward Amplifier Lineariser," August 1997. A. Smith and J. Cavers, "A Wideband Architecture For Adaptive Feedforward Linearization,"			S. Grant, "A	DSP Contro	lled Adaptive Feedforward Amplifier Linea	rizer," J	uly, 1996.			
A. Smith and J. Cavers, "A Wideband Architecture For Adaptive Feedforward Linearization,"				J. Cavers, '	'A DSP Controlled Adaptive Feedforward	Amplifie	r Linearize	er," ICUPC		
			A. Smith and May 18, 1998		"A Wideband Architecture For Adaptive Fe	edforwa	ard Linear	ization,"		
EXAMINER DATE CONSIDERED	EXAMINER				DATE CONSIDERED					

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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE			
		5,307,022	4/94	Tattersall, Jr. et al.	330	52				
		5,532,642	7/96	Takai	330	15				
		5,789,976	8/98	Ghannouchi et al.	330	52				
		5,565,814	10/96	Fukuchi	330	52	· · · · · · · · · · · · · · · · · · ·			
		5,485,120	1/96	Anvari	330	151				
		5,489,875	2/96	Cavers	330	151				
		6,208,207	3/01	Cavers	330	149				
		6,166,601	12/00	Shalom et al.	330	151				
		5,157,345	10/92	Kennington et al.	330	149				
		5,130,663	7/92	Tattersall, Jr.	330	52				
	,			FOREIGN PATENT DOCUMENTS						
		DOCUMENT NUMBER	DATE	COUNTRY ·	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT			
	JP	58-175309	10/14/83	JAPAN						
	•		OTHER DOCU	JMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)						
		F. Amoroso,	"Spectral C	ontainment By PreDistortion of OQPSK S	ignal," C	ctober, 19	998.			
		J. Cavers, "Adaption Behavior of a Feedforward Amplifier Linearizer," February, 1995. Q. Cheng, et al., "A 1.9 GHZ Adaptive Feedforward Power Amplifier, November, 1998.								
		J.C. Lagarias, et al. Convergence Properties of the Nedler-Mead Simplex Algorithm in Low Dimensions, SAIM J. Optim. May, 1997								
		P.B. Kennington and D.W. Bennett, Linear Distortion Correction using Feed-forward System IEEE Trasnactions on Vehicular Technology Vol 45 No 1 (Feb. 1996)								
		J. Chen, et a power ampli		joint lineraisation / equilisation with delay 1998	alignme	ents for a	wideband			
EXAMINER				DATE CONSIDERED			•			

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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			FILING DATE Herewith							
			U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE				
	5,867,065	2/99	Leyendecker	330	149					
	6,414,546	07/02	Cavers	330	149					
	5,898,339	4/99	Maruyama et al.	330	30 151					
	6,075,411 6/00 Briffa et al.		330	149						
		OTHER DOCU	MENT(S) (Including Author, Title, Date, Pertinent Pages,	Etc.)						
			r.K. Chen, Fast Adaptive Wide-bandr Technology conference, Ottawa,		lifier Feed-	forward				
	J.K. Cavers, Convergence Behavior of an Adaptive Feed-forward Linearizer, IEEE Vehicula Technology Conference, (1994).									
	F.T. Luk and S. Qiao, Analysis of a Recursive Least-squares Signal Processi Society for Industrial and Applied Mathematics, Vol 10, No. 3, (May 1989)									
	S. Ljung and L. Ljung, Error Propagation Properties of Recursive Leas Algoritims, Automatica, Vol. 21, No. 2 (1985)									
	E. Eweda an Transactions	d O. Macchi, s on Circuits). Macchi, Convergence of the RLS and LMS Adaptive Filters, IEEE n Circuits and Systems, Vol. CAS-34, No. 7, (July 1987)							
	D.H. Shi and F. Kozin, On Almost Sure Convergence of Adaptive Algorithms, IEEE Transactions on Automatic Control, Vol. AC-31, No. 5, (May 1986)									
	Narrow-band	d Adaptive A	eene, Performance Advantage of Co rays, IEEE Transactions on Acous 9, No. 3, (June 1981)	omplex LMS t tics, Speech,	for Controll and Signal	ing				
	G.A. Clark, S.K. Mitra, and S.R. parker, Block Implementation of Adaptive E Transactions on Acoustics, Speech, and Signal Processing, Vol. ASSP-29, A. Feuer, Performance Analysis of the Block Least Mean Square Algorithm on Circuits and Systems, Vol. CAS-32, No. 9, (July 1985)									
		main LMS Alg Vol. ASSP-3								
	Realization of	of FIR Adapti	nd S.K. Mitra, A Unified Approach t ve Digital Filters, IEEE Transaction I, No. 5, (October 1983)	o Time- and I	Frequency- cs, Speech,	Domain and Signa				
	Adaptive Filt	Mulgrew, C. ter, IEEE Trai ecember 198	F.N. Cowan, and P.M. Grant, A Selfnsactions on Acoustics, Speech, ar 6)	-Orthogonaliz nd Signal Pro	zing Efficie cessing, Vo	nt Block ol. ASSP-				

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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					APPLICANT Thomas Johnson et al.							
					FILING DATE Herewith		GROUP 2817					
				1	U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE				
	_											
			OTHER DOCUM	1ENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
		J.Chao, H. Po as Stepsizes No. 8, (Augu	erez, and S. T , IEEE Trans	Sujii	i, A Fast Adaptive Filter Algorithm lons on Acoustics, Speech, and Sig	Jsing Eig nal Proce	envalue Ressing, Vol.	eciprocals . ASSP-38,				
		S.J. Elliot and Signal Proce	d B. Fafaely, ssing Letters	Rapi s, Vo	id Frequency-Domain Adaptation o l. 4, No.12, (December 1997)	f Causal	FIR Filters,	, IEEE				
					Eigenvalue Distribution of Toeplit -18, No.6, (November 1972)	z Matrice:	s, IEEE Tra	nsactions				
		M. Johansso Feedback, El	n and L. Sun ectronic Lett	dstre ters,	om, Linearization of RF Mulitcarrie Vol. 30, No. 14, (July 7, 1994)	r Amplifie	rs using C	artesian				
		Improved Wi	de-Band Dist	tortic	cterization of a Microwave Feed-Fo on Cancellation", IEEE Transaction Jan. 2001, pp.200-203.	rward Ar s on Mic	nplifier Wit owave The	th eory and				
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- 10 10 10 10 10 10 10 10 10 10 10 10 10			-									

DATE CONSIDERED

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